

Baicells Atom ID0406-6.5 Indoor CPE APN Configuration guide

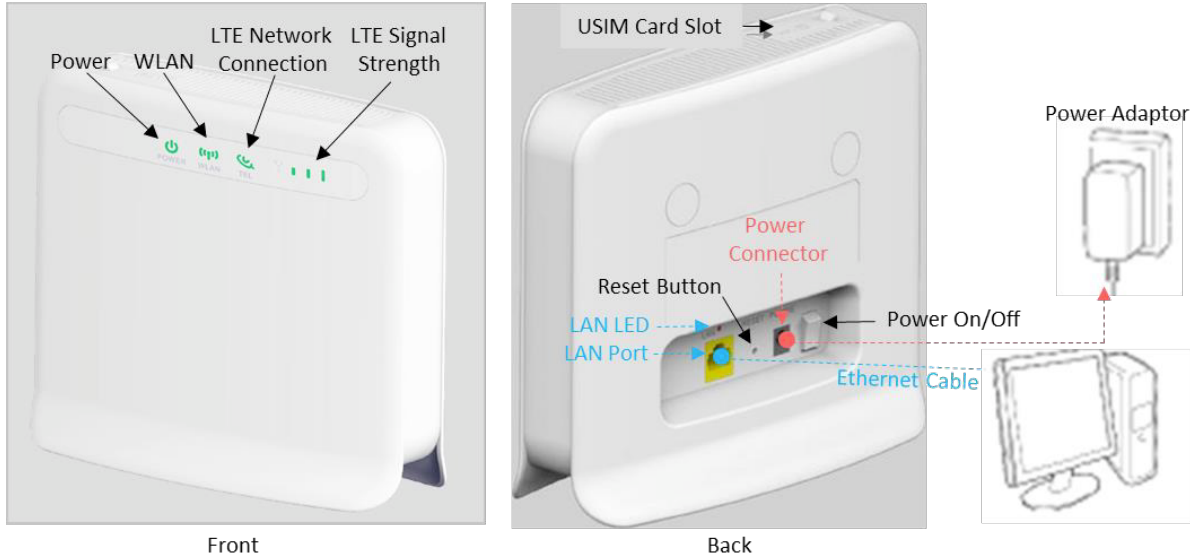
The Baicells setup manual was based on Baicells' User Manual. For additional setup instructions and features, you can find it [here](#).

Installation:

1. Insert the USIM card: Open the protective cover of the USIM card slot on the top of the Atom unit and insert the USIM card into the slot. Close the cover

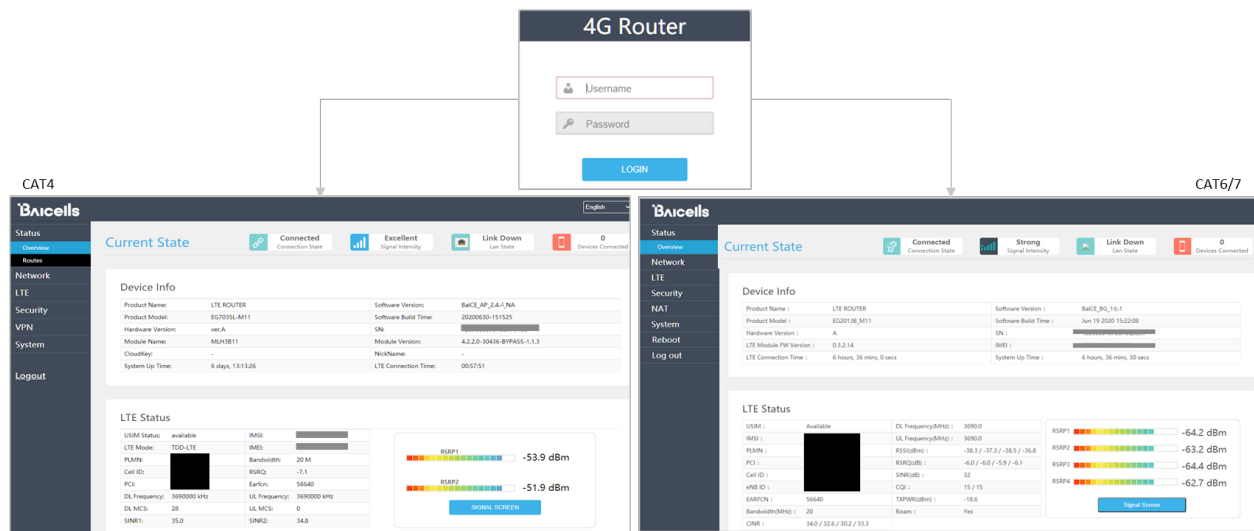


2. Connect the cables and power on
 - a. LAN: Connect one end of the RJ-45 Ethernet cable to the LAN interface on the back of the unit. Connect the other end to a computer or other LAN device.
 - b. Power: Connect the DC-5V power adaptor to the power connector on the back of the unit. Plug the other end into an electrical outlet.
 - c. Turn the power switch to ON.



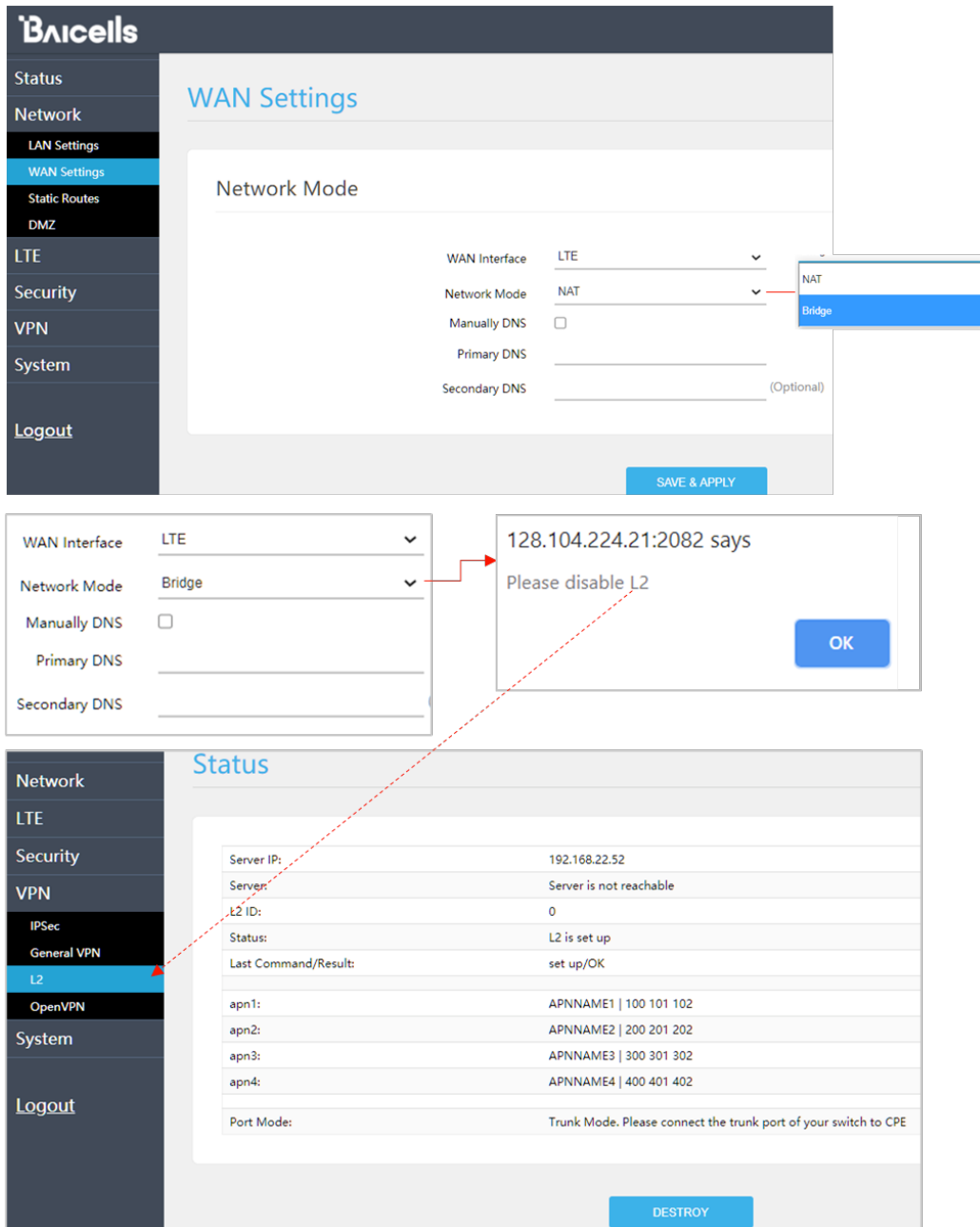
Basic Setup:

1. With your computer connected through Ethernet to the CPE:
 - a. Open a Web browser and enter <http://192.168.150.1>.
 - i. NOTE: If the address does not open the GUI, try <http://192.168.254.1> or <http://192.168.1.1>. These were used for older generation CPEs.
2. Upon first logging in, you may be prompted to change your password.
3. When you click on OK, you will be taken to the System > Account window. Enter a password and click Apply.
4. At the 4G Router login window, enter the default username (admin) and your password. If you were not prompted to change the password upon initial login, enter the default password (also admin). Click on LOGIN. This will take you to the GUI home page, which is the Status > Overview window.



Configure WAN Settings on a Cat 4 CPE

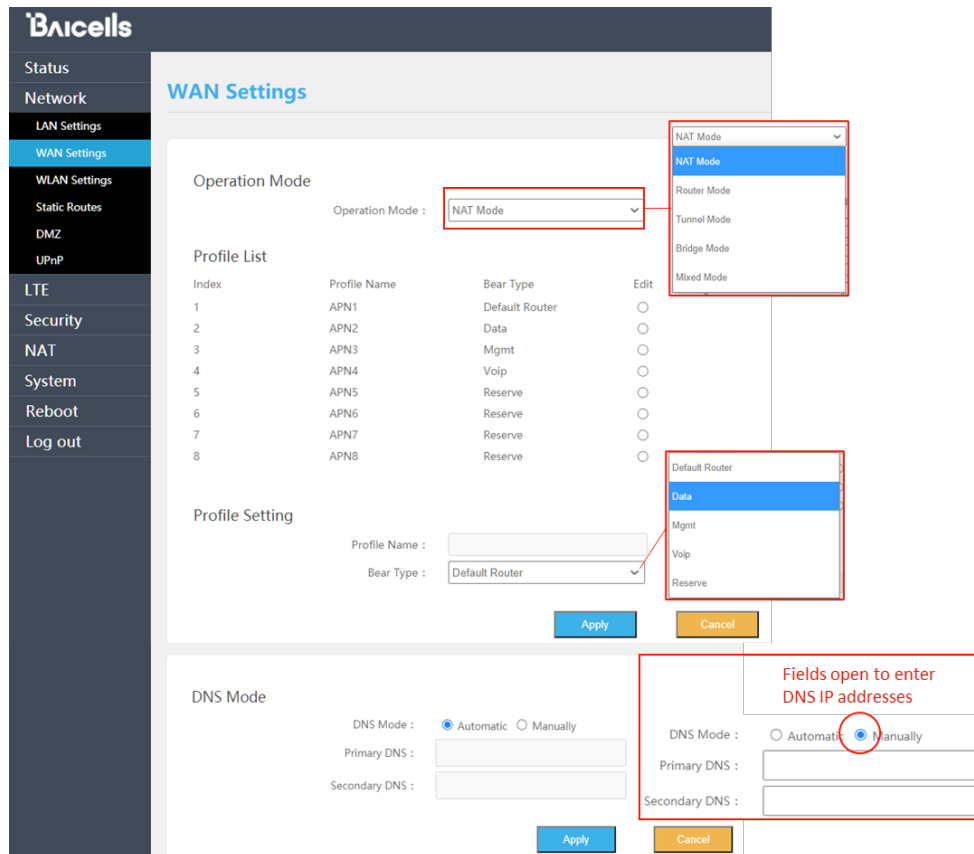
1. Check that the WAN Interface is set to LTE, the default and only selection for this field.
2. For Network Mode, you can configure the CAT4 CPE in either Network Address Translation (NAT) or Bridge mode, depending on your network topology.
 - a. NAT allows multiple hosts on a private network to access the Internet using a single public IP address. Bridge mode disables NAT and enables the CPE to create a Layer 2 (L2) link and function as a DHCP server without IP address confliction.
 - b. NOTE 1: If L2 has been enabled in the VPN > L2 menu, the system will prompt you to disable those L2 settings first before changing the network mode to Bridge. When you get this prompt, click OK, go to the VPN > L2 menu, and select Destroy.
 - c. NOTE 2: Changing the Network Mode requires rebooting the CPE for the change to take effect.
3. Configure one or more DNS servers. The DNS translates domain names such as www.na.baicells.com into their underlying IP addresses. The service provider may use DNS servers to cache domain names frequented by its users, so the sites load more quickly in a browser.
 - a. If you leave the Manually DNS check box unchecked, the CPE will check the first available DNS in the network to resolve the domain name to IP address translation. If you select this check box, you can specify a Primary DNS IP address and a Secondary DNS IP address.



Configure WAN Settings on a Cat 6/7 CPE

1. Select one of the following for the Operation Mode:
 - a. NAT - allows multiple hosts on a private network to access the Internet using a single public IP address. When NAT is selected, all 8 Access Point Name (APN) gateways can be configured for either Default Router, Data, Mgmt, or VoIP.
 - b. Router - The CPE will dynamically update the router tables.
 - c. Tunnel - The CPE will support Layer 2 Tunneling Protocol (L2TP) or Generic Routing Encapsulation (GRE) VPN mode. You can set the Default Route to VPN or WAN.

- d. Bridge - The WAN port addresses will bridge to the LAN port; the LAN port will work in trunking mode.
 - e. Mixed Mode - Each Access Point Name (APN), or external gateway, can be configured with a different mode, either NAT or Bridge, and a different bearer type.
2. In the Profile List, you will see up to 8 APNs. You must have at least one APN configured for the CPE TR-069 connection to the Baicells CloudCore, Local OMC, or other Network Management System (NMS). Therefore, APN1 is the default router Bear Type. When using more than one APN, for example, if you have a different route and Quality of Service (QoS) or other treatment for voice traffic than for data, you can edit the Bear Type by selecting the radio button under Edit and in Profile Setting, choose the Bear Type.
 3. For DNS Mode, you can select either Automatic or Manually. The DNS server translates domain names such as www.na.baicells.com into their underlying IP addresses. The service provider may use DNS servers to cache domain names frequented by its users, so the sites load more quickly in a browser.
 - a. If you select Automatic, the CPE will check the first available DNS in the network to resolve the domain name to IP address translation. If you select Manually, specify a Primary DNS IP address and a Secondary DNS IP address.



Operation Mode

Operation Mode : Router Mode

Apply Cancel

Operation Mode

Operation Mode : Tunnel Mode

Tunnel Mode

VPN Type : L2TP L2TP

NAT Support : Enable

Default Route : VPN GRE

Host name :

L2TP

BCP Support : Disable

L2TP Server IP :

L2TP User :

L2TP Password :

Apply Cancel

Operation Mode

Operation Mode : Bridge Mode

Profile List

Index	Profile Name	Vlan Id	Edit
1	APN1	1121	<input type="radio"/>
2	APN2	1122	<input type="radio"/>
3	APN3	1123	<input type="radio"/>
4	APN4	1124	<input type="radio"/>
5	APN5	1125	<input type="radio"/>
6	APN6	1126	<input type="radio"/>
7	APN7	1127	<input type="radio"/>
8	APN8	1128	<input type="radio"/>

Profile Setting

Profile Name :

Vlan Id : (0-4094)

Apply Cancel

Operation Mode

Operation Mode : Mixed Mode

Profile List

Index	Profile Name	Mode	Vlan Id	Bear Type	Edit
1	APN1	Bridge	1121	Default Router	<input type="radio"/>
2	APN2	Bridge	1122	Data	<input type="radio"/>
3	APN3	Bridge	1123	Mgmt	<input type="radio"/>
4	APN4	Bridge	1124	Voip	<input type="radio"/>
5	APN5	Bridge	1125	Reserve	<input type="radio"/>
6	APN6	Bridge	1126	Reserve	<input type="radio"/>
7	APN7	Bridge	1127	Reserve	<input type="radio"/>
8	APN8	Bridge	1128	Reserve	<input type="radio"/>

Profile Setting

Profile Name :

Mode : NAT Mode

Bear Type : Default Router

Apply Cancel

Configure Local EPC APN

1. In the CAT4 GUI, go to LTE > APN Management, and in the CAT6/7 GUI, go to LTE > Edit APN Profile

CAT4

Baicells

Status

Network

LTE

Connection Mode

Scan Mode

APN Management

PIN Management

Security

VPN

System

Logout

APN Management

APN Number #1

Enable

Mode NAT or Bridge

APN Name

MTU 1500

Default gateway

Apply To No Specified

SAVE & APPLY

APN List

APN Name	Enable	Default Gateway
APNNAME1	enable	enable
APNNAME2	enable	--
APNNAME3	enable	--
APNNAME4	enable	--

CAT6/7

Baicells

Status

Network

LTE

Connection Settings

Edit APN Profile

PIN Management

Cell Selection

SIM Lock Settings

MTU

Security

NAT

System

Reboot

Log out

APN Profile

APN Profile List

Profile Name	APN	User Name	Auth	PDP Type	Enable	Edit
APN1	NULL	IPV4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
APN2	NULL	IPV4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
APN3	NULL	IPV4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
APN4	NULL	IPV4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
APN5	NULL	IPV4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
APN6	NULL	IPV4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
APN7	NULL	IPV4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
APN8	NULL	IPV4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>

APN Profile Settings

Enable: Enable

Profile Name: APN2

APN: VoIP

Auth: NULL

User Name:

Password:

PDP Type: IPV4

Apply Cancel

Select to display the current settings

2. Select an APN number, which is just an index to separate the different APN profiles.
3. Enable the APN profile, and give it a name.
4. In CAT4, enter the Maximum Transmission Unit (MTU) packet size that can be sent on this APN. The range is 576-1500 bytes.
 - a. NOTE: For CAT6/7, the MTU setting is in the LTE > MTU menu.
5. In CAT4, if you want this APN profile to be the default gateway, select the Default check box.
6. In CAT4, you can select a protocol to use: No Specified, TR069, SNMP, SNMP+TR069.
 - a. *NOTE: SNMP is not supported at this time on Cat6/7 CPEs. It is planned for a later release.
7. In CAT6/7, for security, you can enter a username and password and set the Auth Type. The choices for the authorization/encryption protocol are NULL, AUTO, CHAP, or PAP.
8. Save/Apply the settings.